

REMARKS

Reconsideration and allowance of the application is respectfully requested. Claims 1-11 were in the application, claims 1-11 have been cancelled and new claims 12-20 have been substituted therefore.

By this amendment, various grammatical errors have been corrected, with new independent claim 12 being substantially a combination of the limitations of claims 1 and 2, new independent claim 17 being substantially a combination of the limitations of claims 7 and 8. No new matter is included in this amendment.

New claim 12 now specifies that the sterilizing step includes:

diffusing a sterilized substance inside each of the containers, fed along a first part (T1) of the first section (T);

diffusing pressurized steam inside each container, while the container is moved along a second part (T2) of the first section (T);

drying the inside of the container by feeding filtered sterile air through the opening of the container while the container is moved forward along a third part (T3) of the first section (T).

New claim 17 now specifies that the sterilization unit includes a rotating turret having a plurality of work stations; each of the work stations including plier means for holding and overturning the containers and for bringing each container from a position with an opening turned upwards to a position in which the opening is turned downwards, and vice-versa; and nozzle means connected to the plier means which enter through the opening for sterilizing the inside surfaces of the containers.

Claims 1-11 were rejected as being obvious over Boucher, U.S. patent no. 3,172,434

in view of Achhammer, U.S. patent no. 6,185,910.

To establish a prima facie case of obviousness based on a combination of references, there should be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. In re Raynes, 7 F.3d 1037, 1039, 28 U.S.P.Q.2D (BNA) 1630, 1631 (Fed. Cir. 1993); In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2D (BNA) 1443, 1445 (Fed. Cir. 1992). However, the search for a teaching or suggestion should not be rigid, and a more flexible approach to a determination of obviousness should be used so as to avoid conflict with common sense. *KSR International Co. v. Teleflex Inc. et al*, 2007 U.S. Lexis 4745 U.S. Supreme Court, April 30, 2007. The Supreme Court reaffirmed that obviousness can not be established by a hindsight combination to produce the claimed invention. In re Gorman, 933 F.2d 982, 986, 18 U.S.P.Q.2D (BNA) 1885, 1888 (Fed. Cir. 1991). It is the prior art itself, and not the applicant's achievement, that must establish the obviousness of the combination.

As discussed above, new claim 12 describes a specific three step sterilization, of the inside of containers, while the containers are being transported, which is quite different from the prior art technique of immersing containers in a sterilizing bath. The present invention allows the sterilization to be completed in a very reduced space, that is, in only one chamber.

Boucher describes a method and apparatus for filling containers until a weighing device at a weighing station indicates the container is full. Boucher does not disclose a bottle sterilizing treatment station or step.

Achhammer describes what is in essence, the prior art method and apparatus for bottling, where bottles are immersed into a plurality of immersion sterilizing baths before filling.

The sterilizing baths are located within an immersion bath sterilizer (2) which is divided into two distinct chambers: a dirt side chamber (8) and a ultraclean-room side (9).

“The immersion bath sterilizer (2) must be as such that a dirt side and a ultraclean-room side are clearly separated. For this purpose a partition (10) is provided in the immersion bath sterilizer so that it is subdivided into a ultraclean-room (9) and a dirt side (8).” (col. 5, l. 22-28).

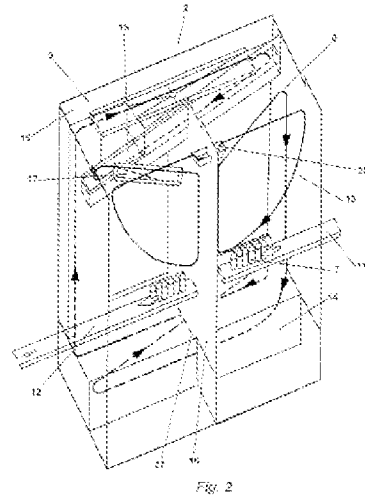
“In the interior of the immersion bath sterilizer a plurality of immersion baths are implemented. A first immersion bath (14) is provided in the bottom area. The wall (10) extends with its lower edge (27) into said immersion bath thus forming a hydraulic lock. Germs from the dirt side (8) are prevented from penetrating into the ultraclean-room side. A dome and draining zone (15) is provided in the rear third of the immersion bath sterilizer above the first immersion

bath (14). In addition, a second immersion bath (16) as well as a further draining zone (17) are arranged above the first immersion bath (14).” (col. 5, l. 33-43, Emphasis added).

In Achhammer, sterilization is performed from the outside of the containers, that is, the containers are put into contact with the sterilization substance only from outside by immersing them into the immersion baths.

Thus, the inner walls of the containers will be subjected to a sterilization action only by the quantity of sterilizing substance which manages to be poured into the containers through their openings.

Not every point of the inner walls of the bottles will necessarily be subjected of a same sterilization action, as it is possible that some points, especially those located along the curved inner surface of the bottles, would not be contacted by the substance flowing into the container.



This is why, to assure a sufficient degree of sterilization of every point of the interior of the containers, it is necessary to convey and immerse the bottles into a plurality of successive immersion baths.

The applicants invention does not require any immersion baths, and allows a simple three step sterilization and drying of containers, working on the inside of the containers while they are gripped, and does not rely on immersion to fill the containers, but actively sprays the sterilizing substance, steam and air into the containers.

Note that the size of the Achhammer device is quite large, because of the need for multiple baths. The present invention on the other hand provides for a much more compact construction, the sterilization performed using nozzle means associated with plier means as the containers are fed along a first section path (T) alongside the feeding path (P). This arrangement permits a reduction in the overall size of the apparatus.

Also in Achhammer, the bottles after immersion must be conveyed along drainage zones to allow liquid to drain from the bottle openings. However, this allows the inner walls of the containers to remain damp, and they will not be dry before being filled, which can lead to contamination.

The present invention performs a final drying step by feeding filtered sterile air

directly inside the containers through their openings before filling.

It is quite clear that a person of ordinary skill in the art would not find any teaching or suggestion in Boucher and Achhammer that would lead one to the present invention, and to the contrary, these patents would lead one to believe immersion sterilization to be the proper method for sterilizing containers. Certainly, there is nothing to suggest the inside spray sterilization method and apparatus of the present, specifically diffusing a sterilizing substance inside the containers, diffusing pressurized steam inside the containers, and drying the inside by feeding filtered sterile air, or the use of nozzles entering inside the containers to perform the sterilization and drying directly there inside, as in the present invention. Consequently, claims 12-20 are not rendered obvious by the proposed combination.

Based on the above amendments and remarks, favorable consideration and allowance of the application are respectfully requested. However should the examiner believe that direct contact with the applicant's attorney would advance the prosecution of the application, the examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

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